REMARKS

By this amendment, claims 1, 37, 44, 49 and 51 have been amended to more particularly define the invention and even more clearly distinguish the claims over the prior art of record. No claims have been added or cancelled. Claims 5, 6, 18, 19, 29, 30, 35 and 36 have been previously cancelled. Currently, claims 1-4, 7-17, 20-28, 31-34 and 37-60 are pending in the application, of which claims 1, 14, 25, 31, 37, 44, 49 and 51 are independent.

Applicant respectfully submits that the above amendments do not add new matter to the application and are fully supported by the specification. In view of the above Amendments and the following Remarks, Applicant respectfully requests reconsideration and withdrawal of the objections and rejections for the reasons discussed below.

Objection to the Specification

The specification was objected to because the previous amendment filed on December 3, 2008 introduced new matter into the disclosure. More specifically, the Examiner stated that the original disclosure does not disclose "an ingress module that receives the pause frame generated from the egress module of the same network switching device and requests the source channel to pause sending the frame in response to a receipt of the pause frame as recited in the amended independent claims 37, 44, 49 and 51 and the ingress module that receives the pause release frame from the egress module of the same network switching device and requests the source channel to resume sending the frames of data in response to a receipt of the pause

release frame as recited in claims 38, 45, 50 and 52." (Office Action, page 2) This objection is respectfully traversed at least for the following reasons.

It is clear from the disclosure that the amended claims are fully supported by the specification. For example, FIG. 2 shows a switch 200 coupled to a plurality of channels 204A to 204N. Each of the channels 204A to 204N is connected to a corresponding network device, for example, one of the network devices 104A to 104B shown in FIG. 1. The switch 200 includes a plurality of ports 202A to 202N. The ports 202A to 202N are connected to the plurality of channels 204A to 204N, respectively. Each of the ports 202A to 202N includes an ingress module 214 and an egress module 216.

The switch 200 further includes a queue controller 206, which is connected to the plurality of ports 202A to 202N. More specifically, the queue controller 206 is coupled to the ingress module 214 and the egress module 216 of each port 202. FIG. 4 shows a queue controller 400 which is "suitable for use as queue controller 206 in network switch 200 of Fig 2." (Paragraph [0029]) Nevertheless, claims 37, 44, 49 and 51 have been amended to expedite prosecution to clarify that the ingress/egress modules are associated with a source channel. Accordingly, the two separate switches may be used such that a pause/pause release frame is sent from an egress module of one switch to an ingress module of another switch, or a pause/pause release frame may be sent from an egress module to an ingress module within the same switch.

Accordingly, Applicant respectfully requests withdrawal of the objection to the specification.

Rejection of Claims under 35 U.S.C. §112, First Paragraph

Claims 37-52 and 57-60 stand rejected under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. More specifically, the Examiner stated that "nowhere in the specification discloses transmission of a pause frame and a pause release frame within the same network switching device, i.e., from the egress module to the ingress module, as currently amended in claims 37-38, 44-45, 49-52." (Office Action, page 3) Applicant respectfully traverses this rejection for at least the following reasons.

As explained above in detail with reference to the objection to the specification, Applicant has amended the claims to clarify that a particular ingress/egress module is associated with a source channel. Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C. §112, first paragraph rejection of claims 37-52 and 57-60.

Rejection of Claims under 35 U.S.C. §103

Claims 1, 2, 7-11, 14, 15, 20-22, 25, 26, 31-32 and 53-56 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,405,258 issued to Erimli (hereafter "Erimli") in view of U.S. Patent No.7,027,457 issued to Chiussi (hereafter "Chiussi"). Applicant respectfully traverses this rejection for at least the following reasons.

In the Office Action, the Examiner admitted that "Erimli does not explicitly teach that the tracking number of queue entries is done by using a plurality of counters, storing a corresponding count, incrementing the count when the forwarding module enqueues one of the buffers, and decrementing the count after stored data is

transmitted, and exercising flow control when the count for the class of service exceeds the threshold as recited in the claim." (Office Action, page 6)

Regarding the missing claimed feature, the Examiner stated that "Chiussi teaches using a plurality of counters 330 in FIG. 3 corresponding to different QoS levels to quantitatively keep track of the number of corresponding QoS queues ... by incrementing a counter when data with an associated QoS is stored into one of the corresponding queues ... and decrementing the counter when data is removed from the queue ..." (Office Action, page 6).

Based on this teaching of Chiussi, the Examiner asserted that "it would have been obvious ... to modify the teachings of Erimli to apply Chiussi's concept of tracking the number of buffers for each class of service using a counter such that the tracking number of queue entries, including incrementing and decrementing counter value would be done by using a plurality of counter values such that a plurality of counters comprising one counter for each of the classes of service wherein each of the counters is configured to store a count for the channel for a respective one of the services ..." (Office Action, page 7). This assertion is respectfully disagreed with at least for the following reasons.

First, it is respectfully submitted that none of the cited references disclose or suggest the "counter configured to store a count ..., increment the count when the forward module enqueues one of the buffers storing one of the frames of data having the respective class of service, and decrement the count after the frame of data ... is transmitted from the network switch device" as recited in claim 1.

The Examiner has taken the position that this claimed feature is disclosed in Chiussi, but each of the Per-QoS-channel counters 330-CNT is configured to monitor "the number of packets in the QoS channel queue" (column 12, lines 65-67). This means that the Per-QoS-channel counters 330-CNT do not count the number of pointers (for the buffers storing received data frames) that have been sent to the corresponding queues. In fact, with reference to the configuration shown in FIG. 3 of Chiussi, the switch fabric 120 does not involve any type of pointer-based counting for performing the second scheduling.

Since no pointers are forwarded, counted or used to retrieve data frames in the switch fabric 120, it would not be possible for Chiussi to disclose or suggest the ability to "increment the count when the forward module enqueues one of the buffers storing one of the frames of data having the respective class of service ..." as recited in claim 1.

Second, none of the cited references discloses or suggests "an egress module configured to ... transmit the retrieved frames of data to a second channel, and exercise flow control on the first channel for each of the classes of service when the count for the class of service exceeds a predetermined threshold for the class of service" as recited in claim 1. In other words, the egress module sends the frames of data retrieved from the buffers to the second channel while exercising flow control on the first channel. Needless to say, the first and second channels are not the same. Otherwise, claim 1 would have recited exercising flow control on the second channel.

In this regard, the Examiner asserted that Erimli teaches an egress module exercising flow control on the channel from which an ingress module receives data packets. However, as previously argued, FIG. 6 of Erimli shows an output port 90a

connected to station 1 (14a) and the output port 90b connected to station 2 (14b). Thus, when frames of data are forwarded from station 1 to station 2, the output port 90a would function as an ingress module because the output port 90a receives frames of data from station 1. The output port 90b would function as an egress module because the output port 90b sends frames of data to station 2.

The Examiner further asserted that the Examiner's interpretation of receiving means and transmitting means of the MAC unit 20 in FIGS. 1 and 3A of Erimli is consistent with an ingress module and an egress module shown in FIGS. 2 and 4 of the application as both an ingress module and receiving means perform receiving function, while both egress module and transmitting means perform transmitting function. (Office Action, page 13). However, "though understanding the claim language may be aided by explanations contained in the written description, it is important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment." *Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875, 69 USPQ2d 1865, 1868 (Fed. Cir. 2004). As mentioned above, claim 1 requires that "the egress module sends the frames of data retrieved from the buffers to the second channel while exercising flow control on the first channel" and Erimli does not disclose at least this claimed feature. Also, Erimli does not suggest configuring the arrangement 600 shown in FIG. 6 such that the output port 90b exercises flow control on the station 1 while sending the data frame originated from station 1 to station 2.

For at least these reasons, it is respectfully submitted that it would not have been obvious to modify and combine the teachings of Erimli and/or Chiussi, whether taken alone or in any proper combination, to arrive at the invention recited in, e.g., claim 1. Thus, it is submitted that claim 1 is patentable over Erimli and/or Chiussi, whether taken alone or in any proper combination. Claims 2, 7-11 and 53 depend from independent claim 1, and are patentable at least for the reasons provided above with regard to claim 1, as well as further reasons related to their own recitations.

Independent claim 14, 25 and 31 also recite the aforementioned features of claim 1 and, hence, are patentable at least for the same reasons provided above, as well as further reasons related to their own recitations. Claims 15, 20-22, 26, 32 and 53-56 depend from independent claims 14, 25 and 31, and are patentable at least for reasons similar to those provided above with regard to claims 14, 25 and 31, as well as further reasons related to their own recitations.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 1-2, 7-11, 14-15, 20-22, 25-26, 31-32 and 53-56 under 35 U.S.C. §103(a).

Claims 3, 4, 12, 13, 16, 17, 23, 24, 27, 28, 33 and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Erimli in view of Chiussi and in further view of U.S. Publication No. 2003/0123393 issued to Feuerstraeter (Feuerstraeter). Applicant respectfully traverses this rejection for at least the following reasons.

Claims 3, 4, 12 and 13 are dependent from claim 1. As noted above, claim 1 is patentable over Erimli and/or Chiussi, whether taken alone or in any proper combination,

because they fail to disclose or suggest, for example, (a) "counter configured to ... increment the count when the forward module enqueues one of the buffers storing one of the frames of data ..., and decrement the count after the frame of data ... is transmitted from the network switch device" and (b) "an egress module configured to ... transmit the retrieved frames of data to a second channel, and exercise flow control on the first channel ..." (Emphasis added).

As previously mentioned, Feuerstraeter does not cure the deficiency of Erimli and Chiussi. More specifically, Feuerstraeter does not disclose or suggest (a) incrementing the count when the forward module enqueues one of the buffers, and (b) an egress module transmitting retrieved frames one channel while exercising flow control on another channel. Thus, it is submitted that claim 1 is patentable over Erimli, Chiussi and/or Feuerstraeter, whether taken alone or in any proper combination. Claims 3, 4, 12 and 13 depend from independent claim 1, and are patentable at least for the reasons provided above with regard to claim 1, as well as further reasons related to their own recitations. Claims 16, 17, 23, 24, 27, 28, 33 and 34 are also patentable for similar reasons.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 3-4, 12-13, 16-17, 23-24, 27-28 and 33-34 under 35 U.S.C. §103(a).

Other Matters

In this response, claims 1 and 37 have been amended solely for better wording and clarification by incorporating the limitations in the wherein clauses into the limitations directed to the egress module. These amendments are not made for the purpose of avoiding prior art or narrowing the claimed invention, and no change in claim scope is intended. Therefore, Applicant does not intend to relinquish any subject matter by these amendments.

CONCLUSION

Applicant believes that a full and complete response has been made to the Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicant respectfully submits that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicant's undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully Submitted,

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